FORM PTO-1449 (REV. 7-85)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE CITATION

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ATTY. DOCKET NO. CL/V-31563P1/CVA APPLICATION NO. 09/911,218 APPLICANT QIU ET AL. FILING DATE JULY 23, 2001

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U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE |
|---------------------|----|-----------------|----------|-------------------------|-------|----------|-------------|
| ilem | AA | 4,168,112 | 9/18/79 | Ellis, Edward J., et al | 351 | 160 | |
| 1 | AB | 4,321,261 | 3/23/82 | Ellis, Edward J., et al | 424 | 180 |) |
| | AC | 4,941,997 | 7/17/90 | Decher, Gero, et al | 252 | 586 | - |
| | AD | 4,973,429 | 11/27/90 | Decher, Gero, et al | 252 | 587 | |
| | ΑE | 5,068,318 | 11/26/91 | Decher, Gero, et al | 534 | 573 | |
| | AF | 5,518,767 | 5/21/96 | Rubner, Michael, et al | 427 | 259 | 1 |
| | AG | 5,529,727 | 6/25/96 | LaBombard, Denis | 264 | 1.36 | |
| | АН | 5,536,573 | 7/16/96 | Rubner, Michael, et al | 428 | 378 | |
| | ΑI | 6,011,082 | 01/04/00 | Wang, Yading | 523 | 107 | |
| | AJ | 5,807,636 | 09/15/98 | Sheu et al. | 428 | 403 |) |
| 4 | AK | | | | | | |
| | AL | | | | | | |

FOREIGN PATENT DOCUMENTS

| | | | DOCUMENT NUMBER | DATE | OFFICE | CLASS | SUBCLASS | TRAN YES | SLATION NO |
|--------|-----|-----|-----------------|---------|------------------|-------|----------|-------------|---------------|
| A | ten |)АМ | 0 032 443 A2 | 1/9/81 | Europe | | | | |
| \cup | | AN | 0 138 385 A2 | 9/13/84 | Europe | _ | _ | | |
| | 1 | AO | 05318118 | 3/21/93 | Japan - abstract | | | | |
| | | AP | GB 2, 102,070 | 1/5/78 | Great Britian | | | | |
| | | AQ | JP 01,158,412 | 2/26/80 | Japan | | | | |

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)

| 1 | hm | AR | Blood Capatibility-Surface Characteristic Relationships of a Langmuir-Blodgett Film Composed of an Anionic Amphiphile-Polycation Complex, Uchida M., et al., New Polymers Material, Vol. 4, No. 3 pp. 119-211 (1994) | | | | | |
|---|----------------------------------|----|--|--|--|--|--|--|
| J | | AS | Enhancement of Light Emitting Diodes Based on Self-Assembled Heterosctructures of Poly (P-phenylene vinylene), O. Onitsuka, et al., Journal Applied Physics, 80, (7), 1 October 1996, ppg 406 4071 | | | | | |
| | | AT | Investigations of New Self-Assembled Multilayer Thin Films Based on Alternately Absorbed Layers of Polyelectrolytes and Functional Dye Molecules, D. Yoo, et al., Material Resource, Soc. Symp. Proc. Vol. 413, 1996, Materials Research Society | | | | | |
| • | EXAMINER DATE CONSIDERED (/- 100 | | | | | | | |

*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609: Draw a line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.

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FOREIGN PATENT DOCUMENTS

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|--|----------|----|--------------------|----------|------------------------|-------|----------|-------------|---------------|
| To The | PADE | | DOCUMENT NUMBER | DATE | OFFICE | CLASS | SUBCLASS | TRAN YES | SLATION NO |
| 1/2 | M | AA | WO 95/00618 | 1/5/95 | PCT | | | | |
| \mathcal{J}_{i}^{-} | 1 | AB | WO 95/02251 | 1/19/95 | PCT | | | | |
| | <u>.</u> | AC | WO 95/20407 | 8/3/95 | PCT | | | | |
| | | AD | WO 96/18498 | 06/25/96 | PCT | | | | |
| | | AE | WO 96/31792 | 10/10/96 | PCT | | -,- | | |
| | | AF | WO 96/37241 | 4/25/96 | PCT | | | | |
| | | AG | WO 99/57581 | 11/11/99 | PCT | | | | |
| | | АН | WO 98/05269 | 02/12/98 | PCT | | | | |
| | J | Al | EP 0989418 | 03/29/00 | European Patent Office | | | | |
| | • | AJ | | | | | | | |
| | | AK | | | | | | | |
| | | AL | | | | | | | |
| | | AM | | | | | | | |
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Group

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| Ė | 3 | OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.) | | | | | | |
|-------------|-----|---|--|--|--|--|--|--|
| 1 Jan | ĀA | New Electro-Active Self-Assembled Multilayer Thin Films Based on Alternately Absorbed Layers of Polyelectrolytes and Functional Dye Molecules, D. Yoo, et al., Elsevier Science, S.A., 1977, ppg 1425-1426 | | | | | | |
| 1 | AB | Layer-By-Layer Modification of Surfaces Through the Use of Self-Assembled Monolayers of Polyions, D. Yoo, et al., ANTEC, 1995 ppg 2568-2570 | | | | | | |
| (. Y | | Molecular Self-Assembly of Conducting Polymers: A New Layer-by-Layer Think Film Deposition | | | | | | |
| 7 | AC | Process, J. H. Chung, et al., | | | | | | |
| , | AD. | Patterned Polymer Multilayer Fabrication by Controlled Adhesion of Polyelectrolytes to Plasma-Modified Fluoropolymer Surfaces, T. G. Vargo, et-al, Supramolecular Science, Volume 2, Numbers 3-4, 1995, ppg 169-174 | | | | | | |
| N) NN | ΑE | Molecular-Level Processing of Conjugated Polymers 1. Layer-by-Layer Manipulation of Conjugated Polyions, M. Ferreira, et al., Macromolecules, Vol. 28, No. 21, 1995, ppg 7107-7114 | | | | | | |
| 4 | AF | Molecular-Level Processing of Conjugated Polymers 2. Layer-by-Layer Manipulation of In-Situ Polymerized p-type Doped Conduction Polymers, M. Ferreira, et al., Macromolecules, Vol. 28, No. 21, 1995, ppg 7115-7120 | | | | | | |
| | AG | Molecular-Level Processing of Conjugated Polymers 3. Layer-by-Layer Manipulation of Polyaniline via Electrostatic Interactions, J. H. Cheung et al., Macromolecules, 1997, 30, ppg 2712-2716 | | | | | | |
| | АН | International Search Report | | | | | | |
| | Al | | | | | | | |
| | AJ | | | | | | | |
| | AK | | | | | | | |
| | AL | | | | | | | |
| | AM | | | | | | | |
| | AN | | | | | | | |
| EXAMINER | ₹ | Midage DATE CONSIDERED 6/6/03 | | | | | | |

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